



FNX2404

FNX2405

FNX2406U

FNX2406

Installation  
& Operation



**FANATICX**  
**MID-RANGE**

Páginas de Referencia para la Instalación

Schéma d'Installation

Installations Beiblatt

Istruzioni di Installation

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## **PRACTICE SAFE SOUND™**

**continuous exposure to sound pressure levels over 100db may cause permanent hearing loss. high powered autosound systems may produce sound pressure levels well over 130db. use common sense and practice safe sound.**

If, after reading your manual, you still have questions regarding this product, we recommend that you see your Rockford Fosgate dealer. If you need further assistance, you can call us direct at 1-800-669-9899. Be sure to have your serial number, model number and date of purchase available when you call.

The serial number can be found on the outside of the box. Please record it in the space provided below as your permanent record. This will serve as verification of your factory warranty and may become useful in recovering your product if it is ever stolen.

Serial Number: \_\_\_\_\_

Model Number: \_\_\_\_\_

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## GETTING STARTED

Welcome to Rockford Fosgate! This manual is designed to provide information for the owner, salesperson and installer. For those of you who want quick information on how to install this product, please turn to the ***Installation Section*** of this manual or refer to the icons listed below. Other information can be located by using the Table of Contents. We, at Rockford Fosgate, have worked very hard to make sure all the information in this manual is current. But, as we are constantly finding new ways to improve our product, this information is subject to change without notice.



Visit our website for the latest information on all Rockford products.



Sections marked  
**INSTALLATION**  
include "slam dunk"  
wiring connections



Sections marked  
**TROUBLESHOOTING**  
include recommendations for  
curing installation problems

# INTRODUCTION

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This manual provides information on the features and installation of the **fanaticX** Midrange. We suggest you save this manual for future reference. We strongly recommend you have your Authorized Rockford Fosgate Dealer install the **fanaticX** Midrange. If you do choose to install the system yourself, please be sure to read the entire manual before beginning.

## PACKAGE CONTENTS

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### **FNX2404**

- |                                  |                                    |
|----------------------------------|------------------------------------|
| (2) FNX2404 4" Midrange Speakers | (2) .110 Female Fast-on Connectors |
| (2) 4" Speaker Grilles           | (2) .187 Female Fast-on Connectors |
| (2) 4" Speaker Grille Rings      | (20') 18 Gauge Speaker Wire        |
| (8) #8 x 1.25 Phillips Screws    |                                    |

### **FNX2504**

- |   |                                    |
|---|------------------------------------|
| (2) FNX2405 5 $\frac{1}{4}$ " Midrange Speakers | (2) .110 Female Fast-on Connectors |
| (2) 5 $\frac{1}{4}$ " Speaker Grilles           | (2) .187 Female Fast-on Connectors |
| (2) 5 $\frac{1}{4}$ " Speaker Grille Rings      | (20') 18 Gauge Speaker Wire        |
| (8) #8 x 1.25 Phillips Screws                   |                                    |

### **FNX2604U**

- |                                   |                                    |
|-----------------------------------|------------------------------------|
| (2) FNX2406U 6" Midrange Speakers | (2) .110 Female Fast-on Connectors |
| (2) 6" Speaker Grilles            | (2) .187 Female Fast-on Connectors |
| (2) 6" Speaker Grille Rings       | (20') 18 Gauge Speaker Wire        |
| (8) #8 x 1.25 Phillips Screws     |                                    |

### **FNX2604**

- |   |                                    |
|---|------------------------------------|
| (2) FNX2406 6 $\frac{1}{2}$ " Midrange Speakers | (2) .110 Female Fast-on Connectors |
| (2) 6 $\frac{1}{2}$ " Speaker Grilles           | (2) .187 Female Fast-on Connectors |
| (2) 6 $\frac{1}{2}$ " Speaker Grille Rings      | (20') 18 Gauge Speaker Wire        |
| (8) #8 x 1.25 Phillips Screws                   |                                    |

# INSTALLATION CONSIDERATIONS

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## Tools Needed

The following is a list of some of the tools necessary for the installation of your speakers.

- Power Drill with assorted bits
- #2 Phillips Screwdriver
- Tape Measure
- Voltmeter

## General

1. **For safety**, disconnect the negative lead from the battery prior to beginning the installation.
2. Never run wires underneath the vehicle. Running the wires inside the vehicle provides the best protection.
3. Avoid running wires over or through sharp edges. Use rubber or plastic grommets to protect any wires routed through metal.
4. Mount the speakers away from electrical sources (other than the amplifier) i.e., power cables, electronic fuel pumps, vehicle computers, and other potential noise sources.
5. Mount the speakers away from areas of extreme heat or moisture.

## Speakers

1. Make sure there is an area large enough for the speaker to mount. **Warning!** **Failure to do this can cause damage to the speaker if the speaker frame is bent during installation.**
  2. Check to see that the location is deep enough for the speaker(s) and the location does not interfere with the normal operation of the vehicle.
  3. When mounting the speaker(s) in the door of a vehicle, make sure the speaker(s) do not interfere with either the door or window operation.
  4. When mounting the speaker(s) on the rear deck of the vehicle, check the operation of the rear hatch or trunk lid. Make sure the torsion bars and other moving parts are not obstructed by the speaker(s) installation.
- Please refer to the **Specifications section** of this manual for proper mounting diameter and depth of the speaker(s).

# MOUNTING LOCATION

A solid front stage with a good image is one of the most difficult tasks to achieve in a vehicle. No car has the optimum listening environment. This makes proper sound staging very difficult to accomplish. Most speakers tend to be placed where they will fit easily, as opposed to where they can perform the best. The mounting location of your speakers will have a great effect on the sound quality of your stereo system. The special care taken to place the speakers will yield many hours of listening enjoyment in return. Several important recommendations should be followed.

- Place the speakers where they have a direct path to the listening area.
- For the best integration between the midrange and tweeter, the tweeter should be placed less than 2" from the midrange. (Figure 1)
- If you cannot place the tweeter less than 2" from the midrange, then place the tweeter more than 7" from the midrange. Placing the tweeter 2"-7" from the midrange can cause destructive interference (frequency response problems) which will affect the speaker's ability to reproduce the frequency range around the crossover frequency of the system.
- Whenever possible, place the tweeter directly above or below the midrange as this maximizes the imaging (point source) capability of the speakers (Figure 2).

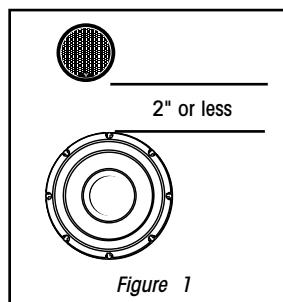


Figure 1

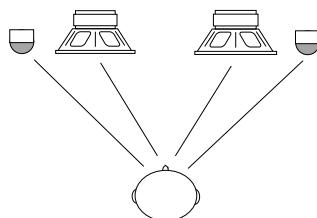


Figure 2-A

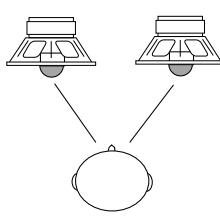


Figure 2-B

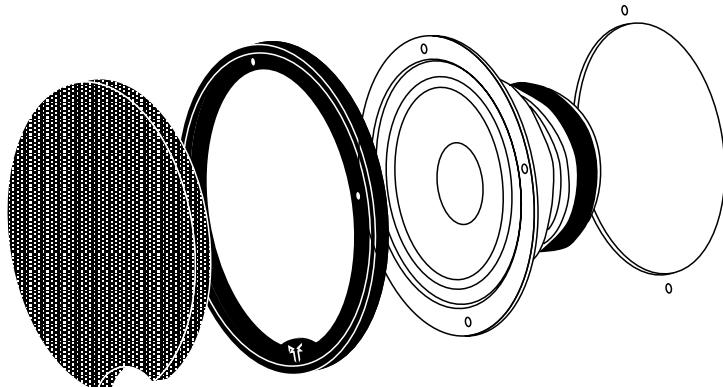
- Sound radiated from a "point source" provides the best stereo imaging because the separation of the acoustical centers between the midrange and tweeter for each channel is at the optimum distance. In a closed environment such as an automobile, horizontal speaker alignment (Figure 2-A) can cause severe amplitude and phase differences which will degrade not only the imaging, but also the frequency response. This is due to the path length differences between the midrange and tweeter. With a vertical alignment (Figure 2-B), the path length difference between the midrange and tweeter are reduced to a minimum. The

result is a negligible difference in path lengths between the midrange and tweeter regardless of the proximity of the listener to the speakers. Mounting the speaker with minimum path length difference will ensure the best staging and imaging possible from your audio system.

## INSTALLATION



### *Mounting the Midrange*



1. Cut the proper size hole for the midrange/woofer.
  - For the 4" speaker, cut a 90mm ( $3\frac{9}{16}$ ") diameter hole
  - For the 5-1/4" speaker, cut a 114mm ( $4\frac{15}{32}$ ") diameter hole
  - For the 6" speaker, cut a 129mm ( $5\frac{1}{16}$ ") diameter hole
  - For the 6-1/2" speaker, cut a 139mm ( $5\frac{1}{2}$ ") diameter hole
2. Place the mounting ring over the mounting hole and mark the location of the screw mounting holes.
3. Remove the ring. Drill the holes for the screws using a 1/8" drill bit.
4. Route the wire through the hole.
5. Attach the wires and be sure to observe the proper speaker polarity.
6. Place the mounting ring over the speaker.
7. Place the speaker into the hole and screw the speaker into place. **Be careful not to bend the speaker frame during this step.**
8. Press the speaker grille into the mounting ring.

# TROUBLESHOOTING



Symptom	Diagnosis	Remedy
<b>No sound from speakers</b>	Wires between amplifier, crossover or speakers not connected properly	Check wiring, and repair or replace as needed
	Amplifier has no output	Check system with known working amplifier, and repair or replace as needed
	Speaker wires are shorted to each other or to the chassis of the vehicle	Check for wiring shorts with a volt/ohm meter, and repair or replace wires as needed
	Speakers are blown	Check system with known working speaker, and repair or replace as needed
<b>Distorted sound from speakers</b>	Incorrect wiring between crossover and speakers	Check wiring and repair or replace as needed
<b>Engine Noise from One or More Speakers</b>	Speaker wires shorted to chassis of vehicle	Check for wiring shorts with a volt/ohm meter and repair or replace wires as needed
	Speaker wires are routed near radiated noise source (power cables, vehicle computers, etc.)	Re-route speaker wiring away from noise sources (refer to the <b>Installation Considerations</b> section of this manual)
	Crossover is mounted near radiated noise source (power cables, vehicle computers, etc.)	Move crossovers away from noise sources (refer to the <b>Installation Considerations</b> section of this manual)

# SPECIFICATIONS

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Midrange Model Number	FNX2404	FNX2405	FNX2406U	FNX2406
Nominal Diameter	4"	5 <sup>1</sup> / <sub>4</sub> "	6"	6 <sup>1</sup> / <sub>2</sub> "
Nominal Impedance	4Ω	4Ω	4Ω	4Ω
Frequency Response	50Hz–8kHz	40Hz–6kHz	40Hz–6kHz	35Hz–5kHz
F <sub>s</sub> (Hz)	104Hz	87Hz	61Hz	72Hz
Q <sub>es</sub>	.920	.732	.507	.902
Q <sub>ms</sub>	4.360	4.083	3.330	4.226
Q <sub>ts</sub>	.735	.621	.440	.743
V <sub>as</sub> (ft <sup>3</sup> /liter)	.07/2.0	.13/3.9	.31/8.8	.72/20.3
X <sub>max</sub> (in/mm)	.11/2.9	.15/3.7	.15/3.7	.15/3.7
Sensitivity	85.9dB	87.5dB	87.9dB	88.5dB
RMS Power Handling	70 Watts	70 Watts	70 Watts	70 Watts
Mounting Diameter	90.48mm (3 <sup>9</sup> / <sub>16</sub> ")	113.50mm (4 <sup>15</sup> / <sub>32</sub> ")	129mm (5 <sup>1</sup> / <sub>16</sub> ")	139.06mm (5 <sup>1</sup> / <sub>2</sub> ")
Mounting Depth	54mm (2 <sup>1</sup> / <sub>8</sub> )	60mm (2 <sup>3</sup> / <sub>8</sub> )	48mm (1 <sup>7</sup> / <sub>8</sub> )	65mm (2 <sup>9</sup> / <sub>16</sub> )

*(Specifications are subject to change without notice)*

# LIMITED WARRANTY INFORMATION

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Rockford Corporation offers a limited warranty on Rockford Fosgate products on the following terms:

- **Length of Warranty**

1 year on speakers	30 days on speaker B-stock (receipt required)
3 years on electronics	90 days on electronic B-stock (receipt required)
2 years on source units	

- **What is Covered**

This warranty applies only to Rockford Fosgate products sold to consumers by Authorized Rockford Fosgate Dealers in the United States of America (U.S.) or its possessions. Product purchased by consumers from an Authorized Rockford Fosgate Dealer in another country are covered only by that country's Distributor and not by Rockford Corporation.

- **Who is Covered**

This warranty covers only the original purchaser of Rockford product purchased from an Authorized Rockford Fosgate Dealer in the U.S. In order to receive service, the purchaser must provide Rockford with a copy of the receipt stating the customer name, dealer name, product purchased and date of purchase.

- Products found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at Rockford's discretion.

- **What is Not Covered**

1. Damage caused by accident, abuse, improper operations, water, theft
2. Any cost or expense related to the removal or reinstallation of product
3. Service performed by anyone other than Rockford or an Authorized Rockford Fosgate Service Center
4. Any product which has had the serial number defaced, altered, or removed
5. Subsequent damage to other components
6. Any product purchased outside the U.S.
7. Any product not purchased from an Authorized Rockford Fosgate Dealer

- **Limit on Implied Warranties**

Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. Some states do not allow limitations on the length of an implied warranty, so this limitation may not apply. No person is authorized to assume for Rockford Fosgate any other liability in connection with the sale of the product.

- **How to Obtain Service**

Please call 1-800-669-9899 for Rockford Customer Service. You must obtain an RA# (Return Authorization number) to return any product to Rockford Fosgate. You are responsible for shipment of product to Rockford. Always include Proof of Purchase. Mark RA# on outside of shipping carton.

Ship to: **Electronics**

Rockford Corporation  
Warranty Repair Department  
2055 E. 5th Street  
Tempe, AZ 85281  
RA#:\_\_\_\_\_

Ship to: **Speakers**

Rockford Acoustic Design  
(Receiving-speakers)  
609 Myrtle N.W.  
Grand Rapids, MI 49504  
RA#:\_\_\_\_\_

**LEA DETENIDAMENTE LAS SIGUIENTES INSTRUCCIONES DE INSTALACIÓN DEL PRODUCTO.**

## **INTRODUCCIÓN — ESPAÑOL**

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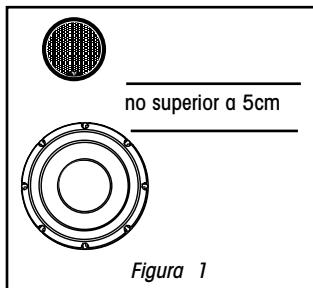
Este manual contiene información sobre la construcción, instalación y funcionamiento de fanatic X. Le recomendamos que conserve el manual para futuras consultas.

Es preferible que la instalación de fanatic X sea realizada por un distribuidor autorizado Rockford Fosgate. Si prefiere realizar la instalación usted mismo, asegúrese de leer el manual en su totalidad antes de comenzar.

## **MONTAJE**

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Le mejor interacción entre tweeter y medio se consigue si no están separados entre si más de 5 centímetros (Figura 1).

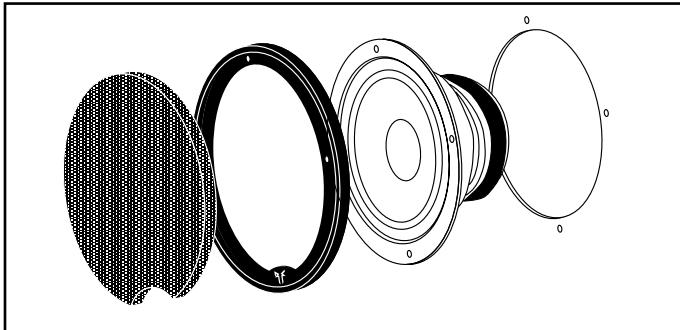


*Figura 1*

# INSTALACIÓN



## Montaje del altavoz de medios



1. Corte el agujero para el medio/woofer.
  - Par el 102mm, corte un circulo de 90mm de diámetro
  - Par el 133mm, corte un circulo de 114mm de diámetro
  - Par el 152mm, corte un circulo de 129mm de diámetro
  - Par el 165mm, corte un circulo de 139mm de diámetro
2. Use los anillos de montaje de plástico como plantilla. Marque la posición de los tornills de anclaje.
3. Quite el anillo y perfore los agujeros con una broca de 3mm.
4. Pase el cable de altavoz a través del agujero.
5. Conecte los cables observando la polaridad. Mantenga los cables alejados pe partes móviles o cortantes.
6. Monte el anillo de montaje sobre el medio/woofer.
7. Asegure el altavoz en la abertura con los tornillos. **Tenga la precaución de no doblar el marco del altavoz en este proceso.**
8. Presione la rejilla en el anillo de montaje.

**Veuillez lire les instructions suivantes pour l'installation de ces produits.**

## **INTRODUCTION — FRANÇAIS**

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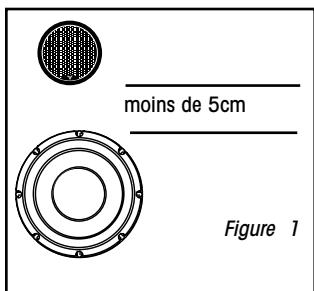
Ce manuel contient des informations sur les caractéristiques et l'installation de fanatic X. Nous vous proposons de garder ce manuel pour toute référence future.

Nous vous recommandons vivement de faire installer votre punch fanatic X par un dealer agréé Rockford Fosgate. Si vous choisissez d'installer le système vous-même, assurez-vous de lire ce manuel entièrement avant de commencer.

## **EMPLACEMENT DE MONTAGE**

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Pour bénéficier d'une harmonie maximum entre le médium et l'aigu l'éloignement entre ces deux haut-parleurs devrait être de moins de 5 cm entre les 2 chassis (Figure 1).

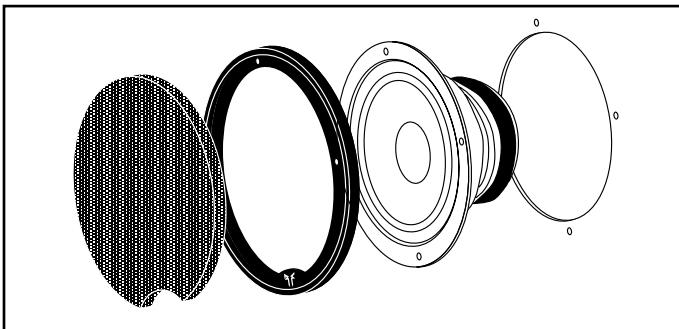


*Figure 1*

# INSTALLATION



## Montage du haut-parleur médium



1. Découper un trou adapté au haut-parleur médium/woofer.
  - Pour le 102mm, le diamètre du trou est de 90mm
  - Pour le 133mm, le diamètre du trou est de 114mm
  - Pour le 152mm, le diamètre du trou est de 129mm
  - Pour le 165mm, le diamètre du trou est de 139mm
2. Placer l'anneau de montage sur le trou et repérer l'emplacement des trous des vis.
3. Retirer l'anneau. Percer les trous des vis en utilisant une mèche de 3mm.
4. Faire passer les fils dans le médium/woofer.
5. Connecter les fils au haut-parleur en respectant les polarités. Eloigner les fils de toute partie tranchante ou mobile du véhicule.
6. Placer l'anneau de montage au-dessus du trou central.
7. Placer le haut-parleur au-dessus du trou central. Visser le haut-parleur dans son emplacement. **Faire attention à ne pas tordre le chassis du haut-parleur durant cette étape de montage.**
8. Mettre la grille dans l'anneau de montage.

**Die folgende Bedienungsanleitung soll Ihnen beim Einbau eine Hilfestellung geben.**

## **ENLEITUNG — DEUTSCH**

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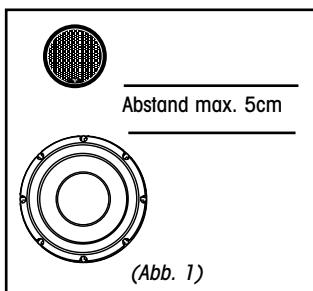
Diese Bedienungsanleitung enthält Informationen für den Gebrauch und Einbau des Punch fanatic X. Wir empfehlen, diese auch für Fragen in der Zukunft sorgfältig aufzubewahren.

Es ist empfehlenswert, sich das fanatic X von einem Autorisierten Rockford Fosgate Fachhändler einbauen zu lassen. Sollten Sie den Einbau jedoch selber vornehmen wollen, so empfehlen wir Ihnen, die Bedienungsanleitung sorgfältig zu lesen.

## **EINBAUORT**

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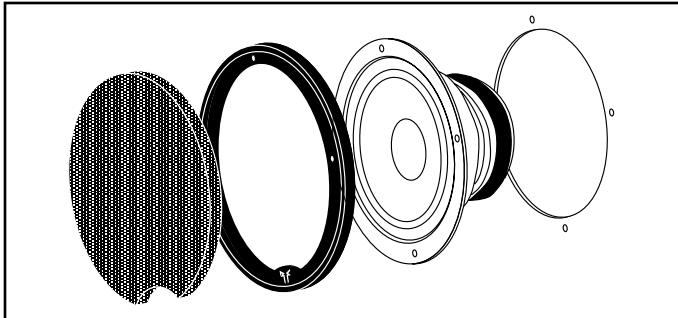
Für das optimale Zusammenspiel von Mittel- und Hochtöner, sollte der Hochtöner niemals weiter als 5cm vorn Mitteltöner entfernt montiert werden (Abb. 1).



# EINBAU



## Montage des Mitteltöners



1. Schneiden Sie die richtige Lochgröße für den Mitteltöner oder Midbab aus.
  - Für den 102mm, schneiden Sie ein 90mm Ø Loch
  - Für den 133mm, schneiden Sie ein 114mm Ø Loch
  - Für den 152mm, schneiden Sie ein 129mm Ø Loch
  - Für den 165mm, schneiden Sie ein 139mm Ø Loch
2. Setzen Sie den Montagering auf das Loch und markieren Sie die Löcher für die Schrauben.
3. Nehmen Sie den Ring wieder ab und bohren Sie dann, mit einem passenden Bohrer, die Schraubenlöcher vor.
4. Führen Sie das Kabel durch das Loch.
5. Schließen Sie die Lautsprecherkabel an. Kontrollieren Sie, ob die Polarität stimmt. Stellen Sie sicher, daß das Lautsprecherkabel an keinen scharfen oder sich bewegenden Teilen anliegt.
6. Plazieren sie den Montagering über dem mitteltönern.
7. Plazieren Sie den Lautsprecher im Loch und befestigen Sie diesen. **Seien Sie dabei sehr vorsichtig, so daß sich der Lautsprecherkorb nicht verzieht.**
8. Drücken Sie das Lautsprechergitter im Montagering fest.

**Leggere le istruzioni seguenti prima dell'installazione del prodotto.**

## **INTRODUZIONE — ITALIANO**

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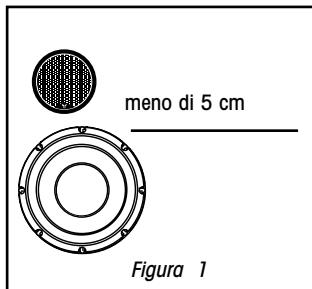
Questo manuale fornisce informazioni sulle caratteristiche e sul installazione dei fanatic X. Vi suggeriamo di conservare questo manuale come riferimento futuro.

Raccomandiamo fortemente che il sistema sia installato dal vostro rivenditore Rockford Fosgate. Se scegliete di procedere con l'installazione da soli, leggete attentamente tutto il manuale prima di proseguire.

## **POSIZIONAMENTO**

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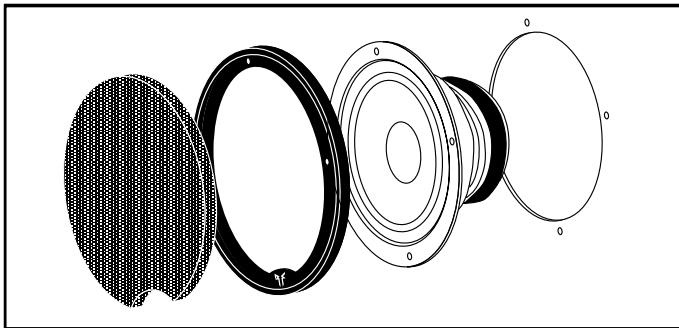
Per ottenere la miglior integrazione tra tweeter e midrange, vi suggeriamo di posizionare i due componenti a meno di 5 cm tra loro (Figura 1).



# INSTALLAZIONE



## *Installazione del Midrange*



1. Practicate un foro del diametro corretto per il midrange/woofer
  - 90mm per 102mm
  - 114mm per 133mm
  - 129mm per 152mm
  - 139mm per 165mm
2. Posizionate l'anello della griglia sul foro e segnate la posizione delle viti.
3. Togliete l'anello e forate il pannello con una punta da 3mm.
4. Passate i cavi attraverso il foro.
5. Collegate i cavi assicurandovi di osservare la corretta polarità.  
Assicuratevi di mantenere i cavi lontano da parti in movimento o strutture taglienti.
6. L'anello della griglia sopra il foro del midrange.
7. Posizionate l'altoparlante nel foro ed avvitatelo. **Assicuratevi di non piegare il cestello dell'altoparlante.**
8. Incastrate la griglia sull'anello di fissaggio.

## **– Notes –**

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Installation assistance available at:

# RFTECH

[www.rockfordfosgate.com/rftech](http://www.rockfordfosgate.com/rftech)

### MADE IN USA

This product is designed, developed and assembled in the USA by a dedicated group of American workers. The majority of the components used in the construction of this product are produced by American companies. However, due to the global nature of their manufacturing facilities and the loudspeaker parts industry in general, some parts may be manufactured in other countries.



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